

January 16, 2024

**FINANCIAL ASSISTANCE CENTER
FINDING OF NO SIGNIFICANT IMPACT/ENVIRONMENTAL ASSESSMENT**

TO: ALL INTERESTED GOVERNMENT AGENCIES AND PUBLIC GROUPS

In accordance with procedures for environmental review found at 10 CSR 60-13.030, a review has been performed on the proposed action below:

Project Identification: Drinking Water System Treatment, Distribution, and Storage Improvements

Applicant: Consolidated Public Water Supply District No.1 of Clark County

Project No: DW291301-02

County: Clark

State: Missouri

Estimated Project Amount: \$7,990,740.00

Potential State Revolving Fund (SRF) Amount: \$7,990,740.00

COMMUNITY DESCRIPTION:

Location: The water system is located in the northeast corner of Missouri in Clark and Lewis counties. The water system also extends partially into Scotland and Knox counties. The water system borders Iowa and Illinois along the Mississippi River.

Population, Present and Projected, and Design Year: The water supply district serves a population of approximately 7,140 people with an average daily demand of 507,364 gallons per day (gpd). The daily peak water demand was around 770,000 gpd. The water supply district estimates a 1.5 percent average future growth based on projections. The 20-year growth forecasts an average daily water demand of 683,000 gpd and a peak demand of 1,037,000 gpd.

Current Methods of Supply, Storage, and Distribution: The distribution system consists of approximately 846 miles of water mains and ranges from 2 to 12 inches in diameter. The district's supply source is from three wells located on the Des Moines River alluvium. The raw water from those three wells is pumped to the Route C Water Treatment Plant. The design capacity of the plant is 600 gallons per minute (gpm) and consists of pressure filters, chlorine injection, a detention tank, and high service pumps. Storage is currently provided throughout the district by two ground storage tanks, four elevated storage tanks, and six standpipes. The distribution system includes eight booster pump stations.



PROJECT DESCRIPTION:

Water Treatment Improvements: The water treatment plant improvements include the expansion of the current water treatment plant building to accommodate two, new 300 gpm greensand filters, a supervisory control and data acquisition (SCADA) system upgrade, and a new generator. The plant will also expand its wastewater lagoon.

Distribution Improvements: The proposed distribution system improvements include a new 10-inch transmission water line to run parallel to the existing transmission line along with upgrades to the backup connection that provides an emergency connection to the City of Kahoka.

Water Storage Improvements: As a part of this project, a new 150,000 gallon elevated storage tank will be constructed in the LaGrange region. All specified accessories, water lines connecting the tank to the existing water distribution system, security fence, and all associated electrical work is included as part of the project.

Purpose and Need: The water treatment plant's expansion will allow for the addition of two new greensand filters and will help increase the capacity for the district. The increased capacity will provide consistent, safe drinking water over the 20-year design period as demand increases. The expansion to the plant will also treat for the emerging contaminant manganese. Currently, the raw water supplied to the treatment plant is above the secondary Maximum Contaminant Level for manganese. The new generator at the treatment plant will provide redundancy in the event of power loss. The project includes expansion of the current SCADA system to accommodate and control the new treatment system and new tank. The work on the treatment plant will address these problems to keep the district in compliance and provide safe drinking water.

The project also includes a new 10-inch transmission line that will run parallel to the current emergency connection with the City of Kahoka. The current transmission line to the City of Kahoka is built on rock layers, which has caused breaks and water loss. The new connection will provide a more reliable emergency connection and reduce water loss.

The project also includes the construction of a new 150,000 gallon elevated storage tower in the LaGrange region. The current standpipes in the area are in poor condition and do not provide enough storage for the region. The new elevated storage tank will provide the needed storage and pressure for the region.

Design Factors: Work will be performed in right-of-ways, easements, and on property owned by the water system. Construction activity will consist of boring, trenching, digging, movement of machinery over the surface, and constructing of new structures. The design standards used in this project are based on the 2013 Minimum Design Standards for Missouri Community Water Systems.

The total construction cost for the proposed improvements including engineering and administrative costs is approximately \$7,990,740.

ALTERNATIVES CONSIDERED:

- No Action (Not Selected) – This alternative would require the district to continue to operate and maintain the existing system to provide water service to its customers. Without the water treatment plant upgrades, the water district would not be able to provide their users with a safe, dependable quantity and quality of potable water throughout the 20-year design period. Without the parallel transmission main addition for the emergency connection to the City of Kahoka the district would not have a reliable back up source. Without the new elevated storage tank, the district will continue to have insufficient storage in the region.

Treatment Alternatives

- Action Alternative No. 1 Catalyst Type Pressure Filters (Selected) – Construct two new 300 gpm sand filters, expand the current SCADA system, and install a backup generator.
- Action Alternative No. 2 Ion Exchange Treatment (Not Selected) – Construct an ion exchange treatment system to run in conjunction with the current filter treatment.
- Action Alternative No. 3 Reverse Osmosis Treatment (Not Selected) – Construct a reverse osmosis treatment system to run after the current filter system.
- Action Alternative No. 4 Biotta Treatment (Not Selected) – Construct a biologically-tailored two stage treatment.

Storage Alternatives

- Action Alternative No. 5 Rehabilitation of Two Standpipes (Not Selected) – Remove and replace the interior and exterior standpipe coatings on the two standpipes in the LaGrange region. This would also include various repairs and modifications to the tanks.
- Action Alternative No. 6 Construct Elevated Storage Tank (Selected) – Construct a new 150,000 gallon storage tank in the LaGrange region to replace the two standpipes.

Distribution Alternatives

- Action Alternative No. 7 Water Line Kahoka Connection (Selected) – Construct a new 10-inch transmission main emergency connection with the City of Kahoka. The water line will run parallel to the current emergency connection.

REASONS FOR SELECTION OF PROPOSED ALTERNATIVES:

Selected Actions – Action Alternative Nos. 1, 6, and 7 were selected over the other alternatives as they provide the most feasible alternatives to the district's water system. The selected alternatives will provide improvements to the water treatment process, storage, and distribution system.

ENVIRONMENTAL IMPACT SUMMARY:

1. Primary Impacts:

- a. Construction: Blowing dust, temporary surface disruption, and noise from construction equipment will occur during construction, but these impacts are expected to be minor and temporary in nature. Best management practices for erosion control measures are part of the project specifications.
- b. Environmental: Environmental impacts of the project are expected to be temporary in nature. The proposed improvements will improve the water treatment and distribution process to provide safe and reliable drinking water to the district's customers for the next 20 years.
- c. Financial: The current rates are \$51.50 per 5,000 gallons. The district will evaluate rates as part of the project. Significant rate increases are not expected but could raise slightly.

2. Secondary:

- a. Population Impacts: This project is designed to serve the existing water system. No relocation of people or structures is anticipated.
- b. Land Use and Trends: No significant change in land use trends is expected to result from this project.
- c. Environmental: No significant secondary environmental impacts are expected as a result of this project.

- 3. Mitigation Measures Necessary to Eliminate Adverse Environmental Effects: Noise, dust, and erosion normally associated with construction will be minimized by good engineering and construction practices. Restoration of disturbed areas along the water mains will be undertaken after construction is complete. Any debris such as demolition and construction waste, trees, or brush, will be disposed of properly.

The Gray and Indiana bats are included on the federal and state-listed endangered species, and Northern Long-Eared bats are included on the federal-listed threatened species list and may be present in the area. Caves known to harbor the bats are not to be entered.

Based upon the US Fish and Wildlife response, as long as tree clearing is completed between November 1st and March 31st, no listed bats will be impacted. No trees are expected to be cleared with the project.

Missouri State Parks stated, if there is no existing easement for the water main replacement at the Kahoka Ballfields LWSC site, then a license agreement instead of an easement will need to be obtained from Missouri State Parks prior to construction. Also, all work at the Kahoka Ballfields will need to be restored to pre-existing conditions within six months.

Tribes with a cultural interest in the project area were consulted and no known issues were identified. If, however, artifacts or human remains are discovered during project construction, work will cease immediately, and the appropriate tribes will be contacted.

4. Irreversible and Irretrievable Commitment of Resources: Fuel, chemicals, and construction materials will be irretrievably committed to the project. Future funds will be committed to the operation and maintenance of the water system.
5. Positive Environmental Effects to be Realized from the Proposed Project: The proposed improvements to the district's system will help provide better water quality, improve operations, extend the useful life of existing structures, reduce water loss, and provide more reliability throughout the system.
6. Reasons for Concluding there will be No Significant Impacts: The proposed project will have a positive impact on water quality and reliability. Population densities and land use trends will not be significantly affected. Where minor impacts will occur, appropriate mitigation measures are planned.

PUBLIC PARTICIPATION:

1. Public Involvement: The district conducted a public meeting to discuss the proposed project improvements, the engineering alternatives, and environmental impacts of the project on December 29, 2023, at the water district's office located at 114 West Court Street, Kahoka, MO 63445. Notice of the meeting appeared on November 29, 2023, in, The Media, a weekly newspaper of general circulation in the region.
2. Public Opposition or Opinions: No adverse comments on the proposed project were received.

COORDINATION AND DOCUMENTATION WITH OTHER AGENCIES AND SPECIAL INTEREST GROUPS:

1. Facility Plan:
 - Water Treatment Expansion Report dated May 11, 2021, Amendment No. 1 dated February 28, 2022, Amendment No. 2 dated May 10, 2022, Amendment No. 3 dated June 22, 2023
 - Regionalization Study dated July 6, 2021, Addendum No. 1 dated February 20, 2022, Amendment No. 2 dated August 16, 2022
 - Environmental Information Document dated January 3, 2024

All documents were prepared by Four Points Land Surveying & Engineering, Inc.

2. Federal: X U.S.F.W.S. X Corps of Engineers

3. State:

- a. Missouri DNR – State Historic Preservation Office
- b. Missouri DNR – Division of State Parks
- c. Missouri DNR – Missouri Geological Survey
- d. Missouri Office of Administration – Federal Assistance Clearinghouse
- e. Missouri Department of Conservation

Historical and Cultural Notices


- a. Missouri Department of Natural Resources – State Historic Preservation Office
- b. Indian Tribes

4. Consulting Engineer: Four Points Land Surveying & Engineering, Inc.
17 Northport Plaza
Hannibal, MO 63401

This action is taken on the basis of a careful review of the facility plan on file in the office of the Department of Natural Resources' Financial Assistance Center at 1101 Riverside Drive, Jefferson City, MO 65101. These are available for public review upon request Monday through Friday, 8:00 a.m. to 5:00 p.m. This agency will not take any administrative action on this project for at least 30 calendar days from the date of this document. Persons wishing to comment on the above environmental decision may submit comments to Lauren Graessle, P.E., of the Department of Natural Resources, Financial Assistance Center, Jefferson City, MO 65102-0176, during this period. Thank you.

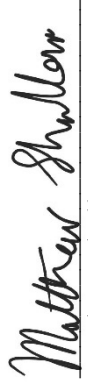
Sincerely,

FINANCIAL ASSISTANCE CENTER


Sara Pringer
Director

SP:msc

Attachments


Matthew Shallow
Associate Engineer

January 16, 2024
Date

DISTRIBUTION

Department of Conservation
P.O. Box 180
Jefferson City, MO 65102

Conservation Federation of Missouri
728 West Main Street
Jefferson City, MO 65101

U.S. Environmental Protection Agency
c/o Carter Tharp – WWPD/SRFB
Tharp.carter@epamail.epa.gov

Missouri Department of Natural Resources
Missouri Geological Survey
Environmental Geology Section
P.O. Box 250
Rolla, MO 65402-0250

Missouri Department of Natural Resources
Division of State Parks
State Historic Preservation Office
P.O. Box 176
Jefferson City, MO 65102-0176

U.S. Fish and Wildlife Service
Ecological Services
101 Park DeVille Drive, Suite A
Columbia, MO 65203-0057

National Park Service
Midwest Region
mwro_compliance@nps.gov

USDA Rural Development
601 Business Loop 70 West
235 Parkade Center
Columbia, MO 65203

Gilmore and Bell, P.C.
c/o Shannon Walsh Creighton
One Metropolitan Square
211 N. Broadway, Suite 2000
St. Louis, MO 63102-2741

SRF File DW291301-02

Clark County Consolidated PWSD No. 1
c/o Dan Dover, District Manager
114 West Court Street
Kahoka, MO 63445

Four Points Land Surveying & Engineering, Inc.
c/o Darleen Groner, P.E.
17 Northport Plaza
Hannibal, MO 63401

Missouri Department of Natural Resources
Northeast Regional Office
1709 Prospect Drive
Macon, MO 63552-2602

The Media
178 West Main Street
Kahoka, MO 63445

Environmental Protection Agency
Office of Federal Activities
Ariel Rios (2252A)
1200 Pennsylvania Avenue, N.W.
Washington, DC 20004

Council of Environmental Quality
722 Jackson Place, N.W.
Washington, DC 20503

U.S. Army Corps of Engineers
Rock Island District
Clock Tower Building
P.O. Box 2004
Rock Island, IL 61204-2004

Northeast Missouri Regional Planning Commission
121 South Cecil Street
Memphis, MO 63555

Lewis, Rice and Fingersh
c/o David Brown
500 North Broadway, Suite 2000
St. Louis, MO 63102

Attached Maps

1. State Map/Project Location Map
2. Treatment and Distribution Project Location Map
3. Storage Tank Improvements Project Location Map

State of Missouri

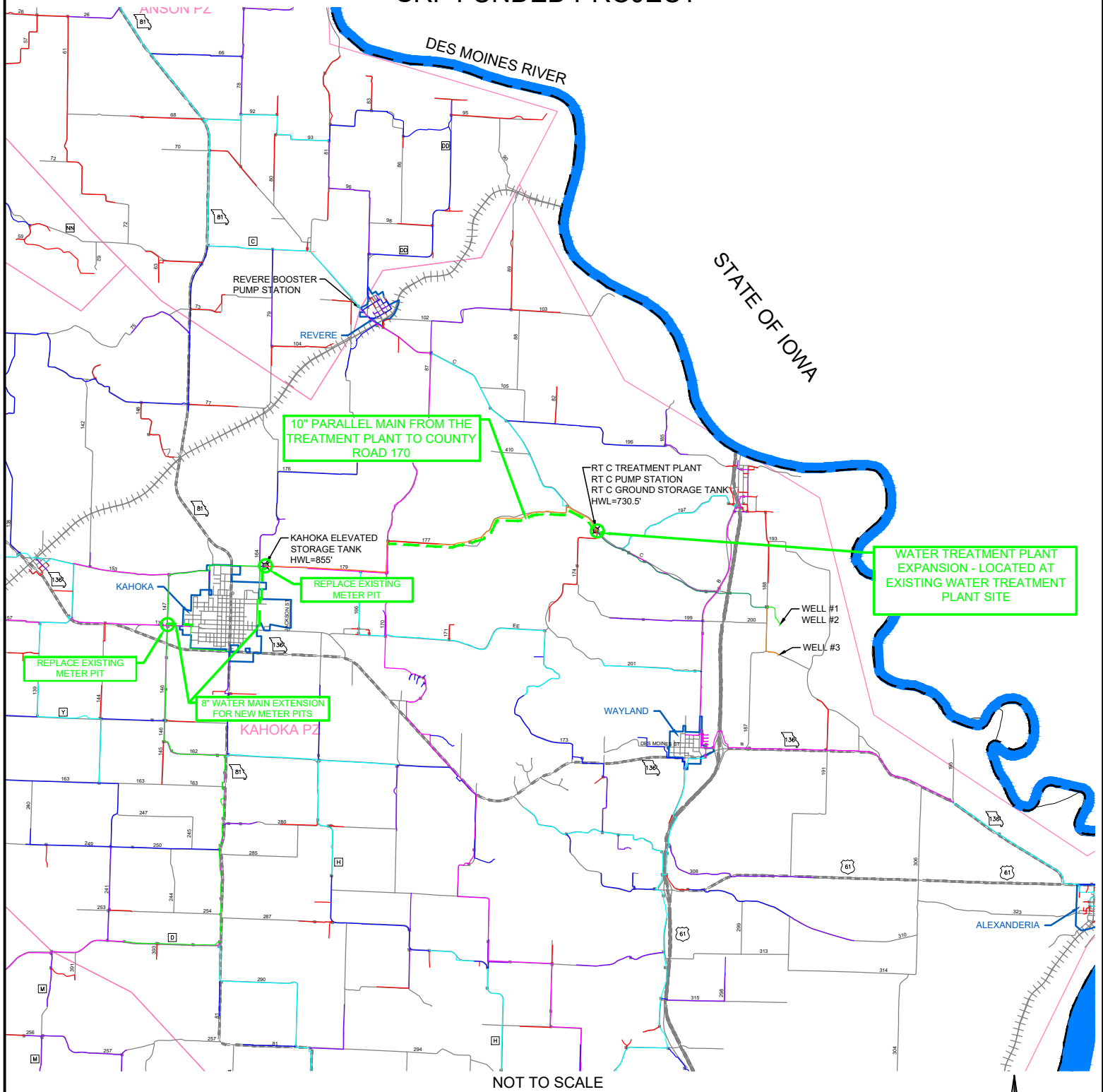


EXHIBIT MAP FOR NORTHERN IMPROVEMENTS

WATER DISTRIBUTION SYSTEM IMPROVEMENTS FOR CPWSD #1

OF CLARK COUNTY, MISSOURI

SRF FUNDED PROJECT



SHEET NO. 1 OF 5
PROJECT NO. 22-0304
DRAWING NAME 220304 Exhibit Map for Environmental

DRAWN KTP
SURVEY N/A
CHECKED KTP

ENVIRONMENTAL REVIEW EXHIBIT MAP

PREPARED FOR:

**CPWSD NO. 1 OF
CLARK COUNTY**



FOUR POINTS LAND SURVEYING AND ENGINEERING, INC.

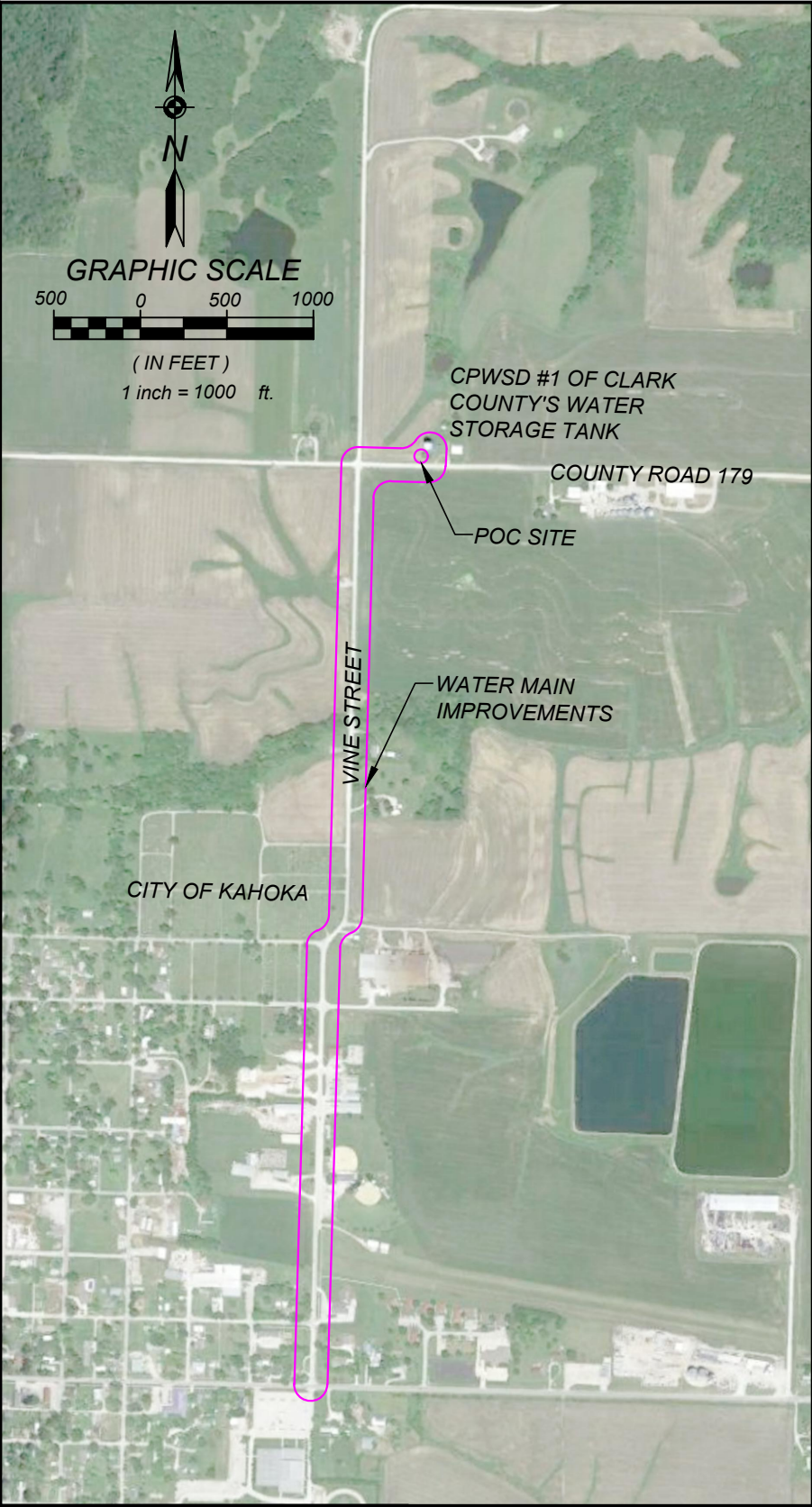
17 NORTHPORT PLAZA
HANNIBAL, MO. 63401
573-406-5533

MISSOURI CERTIFICATE OF AUTHORITY #2010035243





KAHOKA POINT OF CONNECTION AND 8" MAIN-WEST



KAHOKA POINT OF CONNECTION AND 8" MAIN- EAST



WATER TREATMENT FACILITY SITE

 - PROPOSED PROJECT AREA

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EXHIBIT MAP
WATER DISTRIBUTION IMPROVEMENTS - SRF
FUNDED PROJECT
CPWSD No. 1 OF CLARK COUNTY
114 W. COURT STREET
KAHOKA, MO 63445

SURVEYED N/A	DESIGNED KTP	DRAWN KTP	CHECKED KTP
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SHEET NO. 3 OF 5			

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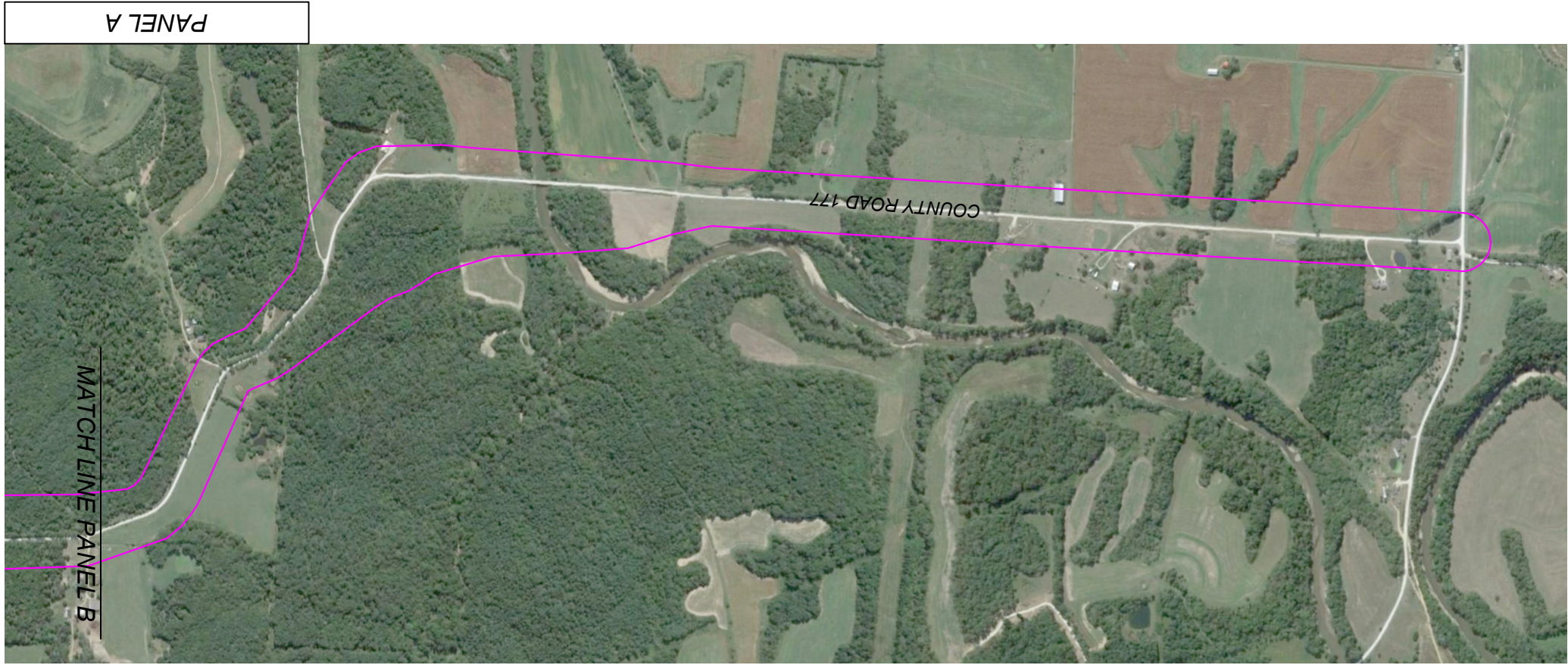
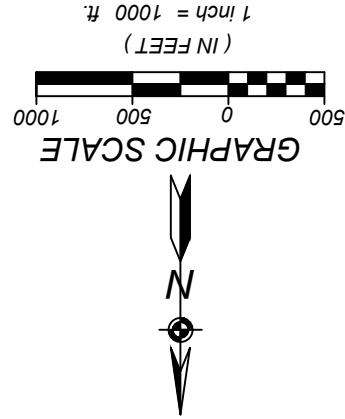
NO.	DATE	REVISION DESCRIPTION	BY



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EXHIBIT MAP
WATER DISTRIBUTION SYSTEM
IMPROVEMENTS - SRF FUNDED PROJECT
CPWSD No. 1 OF CLARK COUNTY
114 W. COURT STREET
KAHOKA, MO 63445

SURVEYED	DESIGNED	DRAWN	CHECKED
N/A	KTP	KTP	KTP
APPROVED	RELEASED	PROJECT NO.	22-0304
DRAWING NAME: 220304 Exhibit Map Up Close Images			
SHEET NO. 4 OF 5			



 - PROPOSED PROJECT AREA

10" PARALLEL TRANSMISSION MAIN

WATER DISTRIBUTION SYSTEM IMPROVEMENTS FOR CPWSD #1
OF CLARK COUNTY, MISSOURI
SRF FUNDED PROJECT

CPWSD NO. 1 OF
CLARK COUNTY

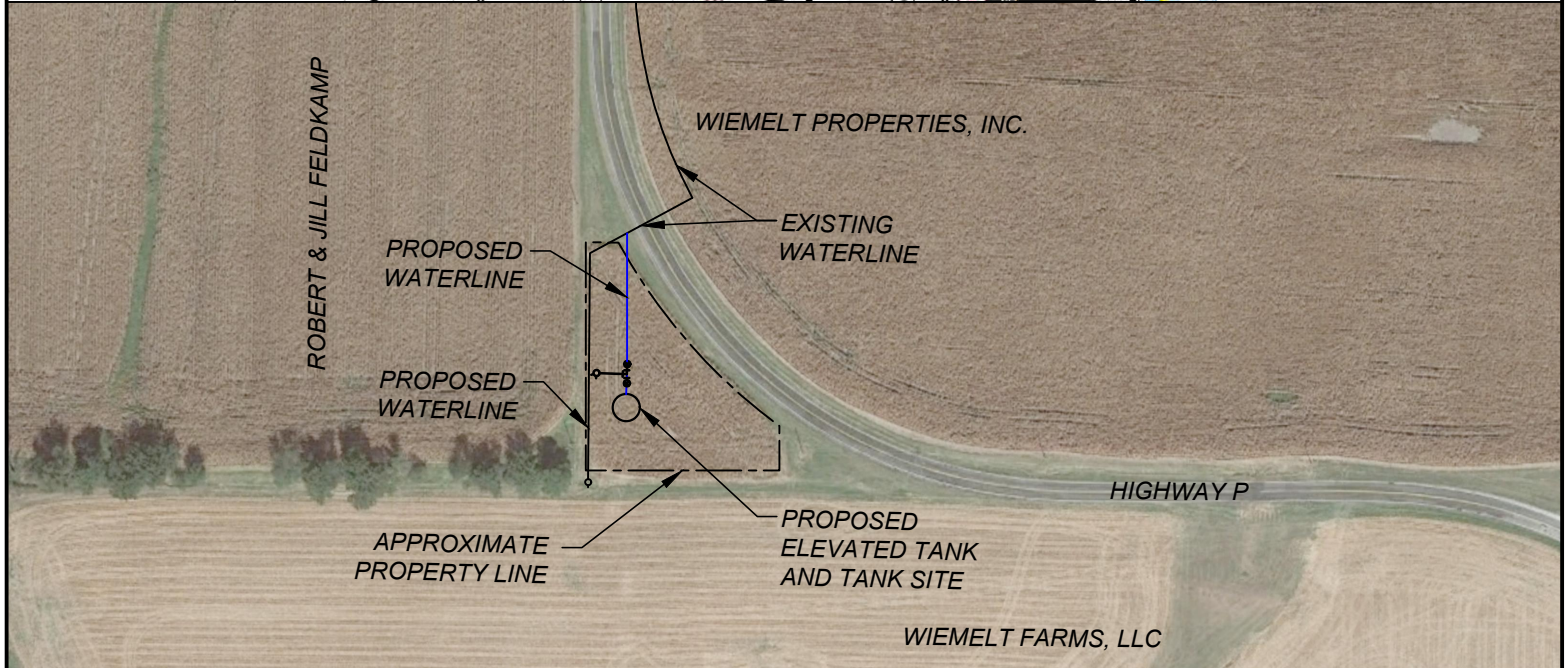
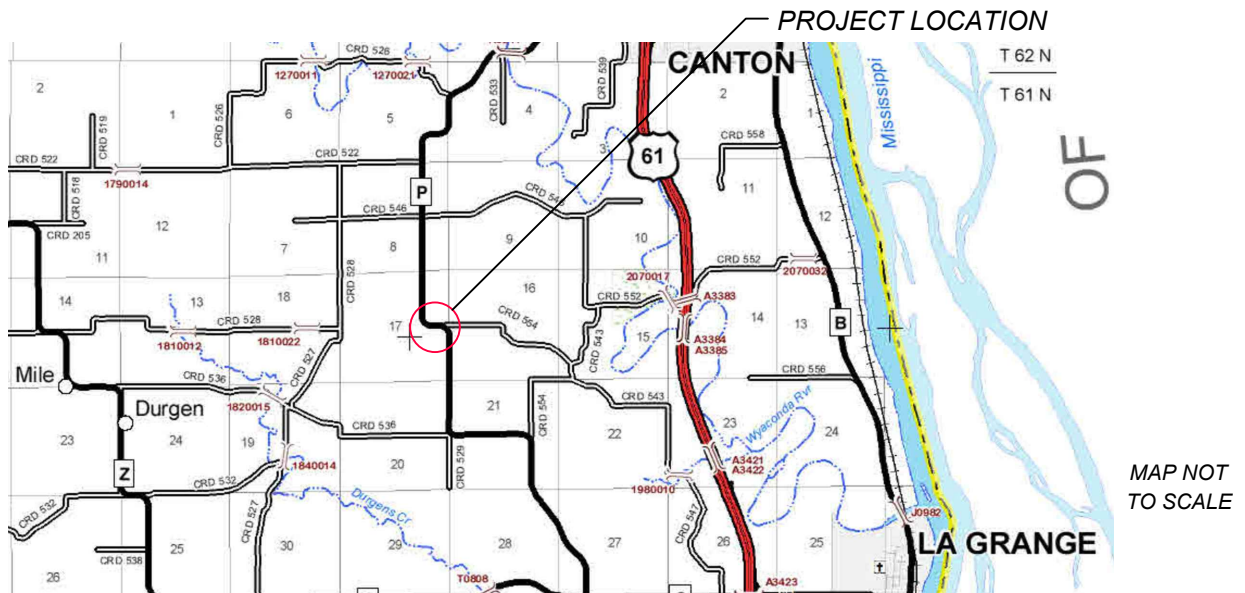
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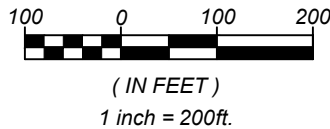
EXHIBIT MAP FOR POTENTIAL ELEVATED TANK LOCATION - REVISED JULY 20, 2023

WATER DISTRIBUTION SYSTEM IMPROVEMENTS FOR CPWSD #1 OF CLARK COUNTY, MISSOURI

SRF FUNDED PROJECT



GRAPHIC SCALE



SECTION 17, T61N, R6W

SHEET NO. 1 OF 5	PROJECT NO. 22-0304	DRAWING NAME 220304 Exhibit Map Up Close Images
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**REVISED LOCATION MAP -
ELEVATED TANK LOCATION**

PREPARED FOR:
**CPWSD NO. 1 OF
CLARK COUNTY**



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